

# Satoshi Uchida

## List of Publications by Year in descending order

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77  
papers

2,983  
citations

117625

34  
h-index

175258

52  
g-index

80  
all docs

80  
docs citations

80  
times ranked

3151  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microglial Immunoregulation by Apoptotic Cellular Membrane Mimetic Polymeric Particles. ACS Macro Letters, 2022, 11, 270-275.	4.8	4
2	Effective mRNA Protection by Poly(L-ornithine) Synergizes with Endosomal Escape Functionality of a Charge-Conversion Polymer toward Maximizing mRNA Introduction Efficiency. Macromolecular Rapid Communications, 2022, 43, e2100754.	3.9	27
3	Delivery Systems of Plasmid DNA and Messenger RNA for Advanced Therapies. Pharmaceutics, 2022, 14, 810.	4.5	4
4	Cell-Penetrating Peptides: Emerging Tools for mRNA Delivery. Pharmaceutics, 2022, 14, 78.	4.5	49
5	Bridging mRNA and Polycation Using RNA Oligonucleotide Derivatives Improves the Robustness of Polyplex Micelles for Efficient mRNA Delivery. Advanced Healthcare Materials, 2022, 11, e2102016.	7.6	17
6	Answering to social issues – Delivery of mRNA vaccines and therapeutics. Drug Delivery System, 2022, 37, 25-34.	0.0	0
7	Complete Chemical Synthesis of Minimal Messenger RNA by Efficient Chemical Capping Reaction. ACS Chemical Biology, 2022, 17, 1308-1314.	3.4	10
8	A helix foldamer oligopeptide improves intracellular stability and prolongs protein expression of the delivered mRNA. Nanoscale, 2021, 13, 18941-18946.	5.6	10
9	mRNA loading into ATP-responsive polyplex micelles with optimal density of phenylboronate ester crosslinking to balance robustness in the biological milieu and intracellular translational efficiency. Journal of Controlled Release, 2021, 330, 317-328.	9.9	37
10	Treatment of ischemic neuronal death by introducing brain-derived neurotrophic factor mRNA using polyplex nanomicelle. Biomaterials, 2021, 270, 120681.	11.4	38
11	Co-encapsulation of Cas9 mRNA and guide RNA in polyplex micelles enables genome editing in mouse brain. Journal of Controlled Release, 2021, 332, 260-268.	9.9	56
12	Multifunctional Immunoadjuvants for Use in Minimalist Nucleic Acid Vaccines. Pharmaceutics, 2021, 13, 644.	4.5	17
13	PEGylation of mRNA by Hybridization of Complementary PEG-RNA Oligonucleotides Stabilizes mRNA without Using Cationic Materials. Pharmaceutics, 2021, 13, 800.	4.5	11
14	A proton/macromolecule-sensing approach distinguishes changes in biological membrane permeability during polymer/lipid-based nucleic acid delivery. Journal of Materials Chemistry B, 2021, 9, 4298-4302.	5.8	7
15	Bioinspired Silicification of mRNA-Loaded Polyion Complexes for Macrophage-Targeted mRNA Delivery. ACS Applied Bio Materials, 2021, 4, 7790-7799.	4.6	7
16	Enzymatically Transformable Polymersome-Based Nanotherapeutics to Eliminate Minimal Relapsable Cancer. Advanced Materials, 2021, 33, e2105254.	21.0	39
17	Platform Technologies for Improving &in vivo& Functionalities of mRNA Therapeutics. Journal of the Society of Powder Technology, Japan, 2021, 58, 627-632.	0.1	0
18	Bundling of mRNA strands inside polyion complexes improves mRNA delivery efficiency in vitro and in vivo. Biomaterials, 2020, 261, 120332.	11.4	35

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19	Guanidine-phosphate interactions stabilize polyion complex micelles based on flexible cationomers to improve mRNA delivery. <i>European Polymer Journal</i> , 2020, 140, 110028.	5.4	18
20	Nanomedicine-Based Approaches for mRNA Delivery. <i>Molecular Pharmaceutics</i> , 2020, 17, 3654-3684.	4.6	88
21	mRNA Delivery: Polymeric Nanocarriers with Controlled Chain Flexibility Boost mRNA Delivery In Vivo through Enhanced Structural Fastening ( <i>Adv. Healthcare Mater.</i> 16/2020). <i>Advanced Healthcare Materials</i> , 2020, 9, 2070054.	7.6	3
22	Polymeric Nanocarriers with Controlled Chain Flexibility Boost mRNA Delivery In Vivo through Enhanced Structural Fastening. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000538.	7.6	33
23	Transient stealth coating of liver sinusoidal wall by anchoring two-armed PEG for retargeting nanomedicines. <i>Science Advances</i> , 2020, 6, eabb8133.	10.3	44
24	A 50-nm-Sized Micellar Assembly of Thermoresponsive Polymer-Antisense Oligonucleotide Conjugates for Enhanced Gene Knockdown in Lung Cancer by Intratracheal Administration. <i>Advanced Therapeutics</i> , 2020, 3, 1900123.	3.2	5
25	A chemically unmodified agonistic DNA with growth factor functionality for in vivo therapeutic application. <i>Science Advances</i> , 2020, 6, eaay2801.	10.3	38
26	mRNA as a Tool for Gene Transfection in 3D Cell Culture for Future Regenerative Therapy. <i>Micromachines</i> , 2020, 11, 426.	2.9	7
27	mRNA Structuring for Stabilizing mRNA Nanocarriers and Improving Their Delivery Efficiency. <i>Materials Proceedings</i> , 2020, 4, .	0.2	1
28	Mechanistic Analyses of Polymer/Lipid-Based Gene Transfection Processes through Membrane Integrity Assay Using Proton Sensing Transistor. <i>Materials Proceedings</i> , 2020, 4, .	0.2	0
29	Development of Flexible Polycation-Based mRNA Delivery Systems for In Vivo Applications. <i>Materials Proceedings</i> , 2020, 4, .	0.2	2
30	Enhancement of Motor Function Recovery after Spinal Cord Injury in Mice by Delivery of Brain-Derived Neurotrophic Factor mRNA. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 17, 465-476.	5.1	52
31	Single-Stranded DNA-Packaged Polyplex Micelle as Adeno-Associated-Virus-Inspired Compact Vector to Systemically Target Stroma-Rich Pancreatic Cancer. <i>ACS Nano</i> , 2019, 13, 12732-12742.	14.6	34
32	Design concepts of polyplex micelles for <i>in vivo</i> therapeutic delivery of plasmid DNA and messenger RNA. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 978-990.	4.0	72
33	PEG-OligoRNA Hybridization of mRNA for Developing Sterically Stable Lipid Nanoparticles toward In Vivo Administration. <i>Molecules</i> , 2019, 24, 1303.	3.8	17
34	Bundling mRNA Strands to Prepare Nano-Assemblies with Enhanced Stability Towards RNase for In Vivo Delivery. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11360-11363.	13.8	40
35	Bundling mRNA Strands to Prepare Nano-Assemblies with Enhanced Stability Towards RNase for In Vivo Delivery. <i>Angewandte Chemie</i> , 2019, 131, 11482-11485.	2.0	5
36	In vivo rendezvous of small nucleic acid drugs with charge-matched block cationomers to target cancers. <i>Nature Communications</i> , 2019, 10, 1894.	12.8	53

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37	Treatment of Intervertebral Disk Disease by the Administration of mRNA Encoding a Cartilage-Anabolic Transcription Factor. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 16, 162-171.	5.1	27
38	Tunable nonenzymatic degradability of <i>N</i> -substituted polyaspartamide main chain by amine protonation and alkyl spacer length in side chains for enhanced messenger RNA transfection efficiency. <i>Science and Technology of Advanced Materials</i> , 2019, 20, 105-115.	6.1	13
39	Induced packaging of mRNA into polyplex micelles by regulated hybridization with a small number of cholesteryl RNA oligonucleotides directed enhanced in vivo transfection. <i>Biomaterials</i> , 2019, 197, 255-267.	11.4	50
40	Precise tuning of disulphide crosslinking in mRNA polyplex micelles for optimising extracellular and intracellular nuclease tolerability. <i>Journal of Drug Targeting</i> , 2019, 27, 670-680.	4.4	52
41	Intravenous injection into the lateral tail vein of a mouse. <i>Drug Delivery System</i> , 2019, 34, 309-311.	0.0	0
42	Treatment of Bone Defects by Transplantation of Genetically Modified Mesenchymal Stem Cell Spheroids. <i>Molecular Therapy - Methods and Clinical Development</i> , 2018, 9, 358-366.	4.1	28
43	Designing immunostimulatory double stranded messenger RNA with maintained translational activity through hybridization with poly A sequences for effective vaccination. <i>Biomaterials</i> , 2018, 150, 162-170.	11.4	41
44	Prolonged engraftment of transplanted hepatocytes in the liver by transient pro-survival factor supplementation using ex vivo mRNA transfection. <i>Journal of Controlled Release</i> , 2018, 285, 1-11.	9.9	12
45	Glycaemic control boosts glucosylated nanocarrier crossing the BBB into the brain. <i>Nature Communications</i> , 2017, 8, 1001.	12.8	191
46	Systemic Delivery of Folate-PEG siRNA Lipopolyplexes with Enhanced Intracellular Stability for <i>In Vivo</i> Gene Silencing in Leukemia. <i>Bioconjugate Chemistry</i> , 2017, 28, 2393-2409.	3.6	42
47	Polyplex Micelles with Phenylboronate/Gluconamide Cross-Linking in the Core Exerting Promoted Gene Transfection through Spatiotemporal Responsivity to Intracellular pH and ATP Concentration. <i>Journal of the American Chemical Society</i> , 2017, 139, 18567-18575.	13.7	71
48	Polyplex micelle installing intracellular self-processing functionalities without free cationomers for safe and efficient systemic gene therapy through tumor vasculature targeting. <i>Biomaterials</i> , 2017, 113, 253-265.	11.4	55
49	Messenger RNA delivery of a cartilage-anabolic transcription factor as a disease-modifying strategy for osteoarthritis treatment. <i>Scientific Reports</i> , 2016, 6, 18743.	3.3	99
50	593. Anti-Angiogenic Therapy for Pancreatic Cancer by Systemic Delivery of Messenger RNA Using Polyplex Nano Micelle. <i>Molecular Therapy</i> , 2016, 24, S234-S235.	8.2	1
51	Treatment of spinal cord injury by an advanced cell transplantation technology using brain-derived neurotrophic factor-transfected mesenchymal stem cell spheroids. <i>Biomaterials</i> , 2016, 109, 1-11.	11.4	50
52	Messenger RNA-based therapeutics for brain diseases: An animal study for augmenting clearance of beta-amyloid by intracerebral administration of neprilysin mRNA loaded in polyplex nanomicelles. <i>Journal of Controlled Release</i> , 2016, 235, 268-275.	9.9	82
53	Synthetic Polyamines to Regulate mRNA Translation through the Preservative Binding of Eukaryotic Initiation Factor 4E to the Cap Structure. <i>Journal of the American Chemical Society</i> , 2016, 138, 1478-1481.	13.7	33
54	Systemic delivery of messenger RNA for the treatment of pancreatic cancer using polyplex nanomicelles with a cholesterol moiety. <i>Biomaterials</i> , 2016, 82, 221-228.	11.4	121

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55	Improved brain expression of anti-amyloid $\hat{I}^2$ scFv by complexation of mRNA including a secretion sequence with PEG-based block cationer. <i>Current Alzheimer Research</i> , 2016, 13, 1-1.	1.4	24
56	Messenger RNA-based therapeutics for the treatment of apoptosis-associated diseases. <i>Scientific Reports</i> , 2015, 5, 15810.	3.3	80
57	491. Messenger RNA (mRNA)-Based Gene Therapy for Introducing Anti-Apoptotic Factor. <i>Molecular Therapy</i> , 2015, 23, S195.	8.2	1
58	Gene Transfection toward Spheroid Cells on Micropatterned Culture Plates for Genetically-modified Cell Transplantation. <i>Journal of Visualized Experiments</i> , 2015, , e52384.	0.3	3
59	Screening of mRNA Chemical Modification to Maximize Protein Expression with Reduced Immunogenicity. <i>Pharmaceutics</i> , 2015, 7, 137-151.	4.5	76
60	Development of Biodegradable Polycation-Based Inhalable Dry Gene Powders by Spray Freeze Drying. <i>Pharmaceutics</i> , 2015, 7, 233-254.	4.5	43
61	Toroidal Packaging of pDNA into Block Ionomer Micelles Exerting Promoted <i>in Vivo</i> Gene Expression. <i>Biomacromolecules</i> , 2015, 16, 2664-2671.	5.4	21
62	A tadpole-shaped gene carrier with distinct phase segregation in a ternary polymeric micelle. <i>Soft Matter</i> , 2015, 11, 2718-2722.	2.7	5
63	Intrathecal injection of a therapeutic gene-containing polyplex to treat spinal cord injury. <i>Journal of Controlled Release</i> , 2015, 197, 1-9.	9.9	24
64	An injectable spheroid system with genetic modification for cell transplantation therapy. <i>Biomaterials</i> , 2014, 35, 2499-2506.	11.4	36
65	Optimized rod length of polyplex micelles for maximizing transfection efficiency and their performance in systemic gene therapy against stroma-rich pancreatic tumors. <i>Biomaterials</i> , 2014, 35, 5359-5368.	11.4	62
66	Targeted gene delivery by polyplex micelles with crowded PEG palisade and cRGD moiety for systemic treatment of pancreatic tumors. <i>Biomaterials</i> , 2014, 35, 3416-3426.	11.4	121
67	Muscle-targeted hydrodynamic gene introduction of insulin-like growth factor-1 using polyplex nanomicelle to treat peripheral nerve injury. <i>Journal of Controlled Release</i> , 2014, 183, 27-34.	9.9	22
68	Tethered PEG Crowdedness Determining Shape and Blood Circulation Profile of Polyplex Micelle Gene Carriers. <i>Macromolecules</i> , 2013, 46, 6585-6592.	4.8	97
69	Investigation of the role of anions in hydrotalcite for quasi-solid state dye-sensitized solar cells application. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4345.	10.3	29
70	Acidic pH-Responsive siRNA Conjugate for Reversible Carrier Stability and Accelerated Endosomal Escape with Reduced IFN $\hat{I}$ -Associated Immune Response. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6218-6221.	13.8	103
71	In Vivo Messenger RNA Introduction into the Central Nervous System Using Polyplex Nanomicelle. <i>PLoS ONE</i> , 2013, 8, e56220.	2.5	107
72	PEGylated Polyplex With Optimized PEG Shielding Enhances Gene Introduction in Lungs by Minimizing Inflammatory Responses. <i>Molecular Therapy</i> , 2012, 20, 1196-1203.	8.2	62

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73	Gene transfection to spheroid culture system on micropatterned culture plate by polyplex nanomicelle: a novel platform of genetically-modified cell transplantation. <i>Drug Delivery and Translational Research</i> , 2012, 2, 398-405.	5.8	12
74	Enhanced stability and gene silencing ability of siRNA-loaded polyion complexes formulated from polyaspartamide derivatives with a repetitive array of amino groups in the side chain. <i>Biomaterials</i> , 2012, 33, 2770-2779.	11.4	73
75	Homo-cationer integration into PEGylated polyplex micelle from block-cationer for systemic anti-angiogenic gene therapy for fibrotic pancreatic tumors. <i>Biomaterials</i> , 2012, 33, 4722-4730.	11.4	61
76	Combination of chondroitin sulfate and polyplex micelles from Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (glycol)-poly gene transfection with reduced toxicity. <i>Journal of Controlled Release</i> , 2011, 155, 296-302.	9.9	41
77	Regulation of synaptic vesicle accumulation and axon terminal remodeling during synapse formation by distinct Ca <sup>2+</sup> signaling. <i>Journal of Neurochemistry</i> , 2009, 111, 160-170.	3.9	14